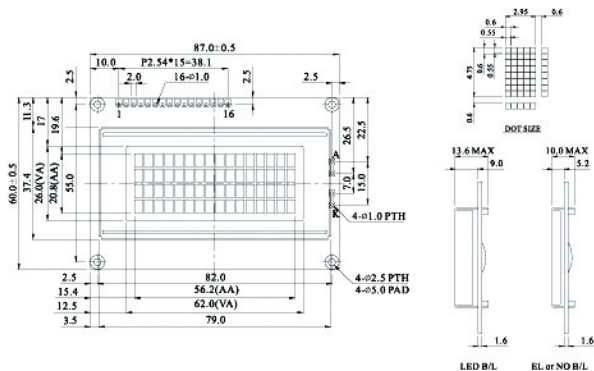


Character 16x4 WH1604A

Dimension drawing



Feature

- 5x8 dots includes cursor
- Built-in controller (KS 0098 or Equivalent)
- +5V power supply (Also available for +3V)
- 1/16 duty cycle
- LED can be driven by pin1, pin2, pin15, pin16 or A and K
- N.Y. optional for +3V power supply

Pin NO.	Symbol	Function
1	Vas	GND
2	Vdd	+3V or +5V
3	Vo	Contrast Adjustment
4	RS	H/L Register select signal
5	R/W	H/L Read / write signal
6	E	H-L Enable signal
7	DB0	H/L Data bus line
8	DB1	H/L Data bus line
9	DB2	H/L Data bus line
10	DB3	H/L Data bus line
11	DB4	H/L Data bus line
12	DB5	H/L Data bus line
13	DB6	H/L Data bus line
14	DB7	H/L Data bus line
15	A/Vee	+4.2V for LED ^(A) (Negative Voltage output)
16	K	Power supply for B/L (0V)

Mechanical Data

Item	Standard Value	Unit
Module Dimension	87.0x60.0	mm
Viewing Area	82.0x28.0	mm
Mounting hole	82.0x55.0	mm
Character Size	2.95x4.75	mm

Character type

Absolute Maximum Rating

Item	Symbol	Standard Value			Unit
		min.	typ.	max.	
Power Supply	VDD-VSS	-0.3	---	7.0	V
Input Voltage	VI	-0.3	---	VDD	V

Note : VSS=0 Volt, VDD=5.0 Volt.

Electrical Characteristics

Item	Symbol	Condition	Standard Value		Unit	
			min.	typ. max.		
Input Voltage	VDD	VDD+5V	4.7	5.0	5.3	V
Supply Current	VDD	VDD+5V	2.7	3.0	5.3	V
		VDD+6V	---	1.0	1.2	mA
Recommended I.C Driving Voltage for Normal Temp. Version module	VDD-V0	-20°C	5.0	5.1	5.7	V
		0°C	4.6	4.8	5.2	V
		25°C	4.1	4.5	4.7	V
		50°C	3.9	4.2	4.5	V
		70°C	3.7	3.9	4.3	V
LED Forward Voltage	V _F	25°C	---	4.2	4.6	V
LED Forward Current	I _F	25°C	---	220	440	mA
B.L. Power Stability Current	I _{EL}	V _{in} =110VAC, 492Hz	---	---	5.0	mA

Display Character Address --- Code

Display position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
DD RAM Address 90 ^(H)																3F
DD RAM Address 90 ^(L)																3E
DD RAM Address 90 ^(H)																4F
DD RAM Address 90 ^(L)																4E
DD RAM Address 10 ^(H)																1F
DD RAM Address 10 ^(L)																1E